

# AVIATION MAINTENANCE SAFETY CONFERENCE

2004

# LINE/SE/SE PMS

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## AVIATION MAINTENANCE SAFETY

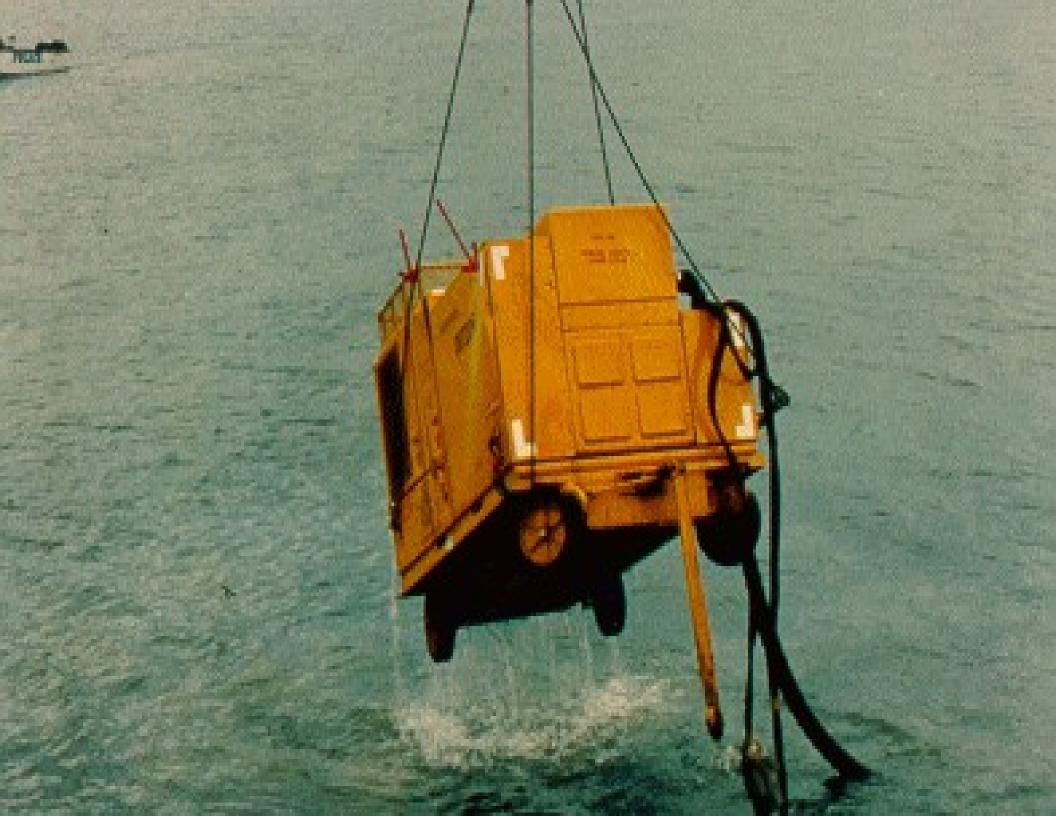
# LINE/SESPHERENCE 2004

- LINE ISSUES
- SE PMS OPNAV 4790/51 RECORDS
- TD-1A AND TD-1B TIEDOWN CHAINS
- FALL PROTECTION
- WEIGHT HANDLING EQUIPMENT
- FUEL SURVEILLANCE

- LINE ISSUES
  - □ALL SUPPORT EQUIPMENT WITH WHEELS 9" AND LARGER NEED TO BE CHOCKED AT ALL TIMES WHEN PARKED! NA 00-80T-96 WP 005, PG 19, PARA

127c

- \*PARKING BRAKES MAY NOT BE OPERATIONAL, OR WERE NEVER USED
- SE HAS BEEN BLOWN INTO AIRCRAFT AND OVER SEA WALLS, CAUSING LOSS OF SE AND OR



- LINE ISSUES
  - HAVE A PRE-OPERATIONAL INSPECTION PRIOR TO EACH USE!
  - OPNAV 4790.2H, VOL. 5, PARA 18.2b(3)
    - **\*OPNAV 4790/52 CARD IS USED FOR DOCUMENTATION OF PRE-OP**
    - \*ANY DISCREPANCIES NOTED
      DURING PRE-OP SHOULD BE
      DOCUMENTED ON OPNAV 4790/52
      CARD, OR MAKE YOUR OWN
      DISCREPANCY SHEET



- LINE ISSUES
  - UNDERSTAND AND BE FAMILIAR WITH THE LIMITATIONS OF THE SE YOU ARE USING
    - \*NAVAIR 00-80T-96, SE BASIC HANDLING & SAFETY MANUAL, PROVIDES SAFETY PRECAUTIONS AND PROCEDURES ON MOST SE
    - **❖IF NOT LISTED USE THE APPLICABLE MIM's**
  - DE-FOD ALL SE PRIOR TO AND AFTER USE
  - **PENSURE HARDWARE AND FASTENERS ARE SECURE WHEN PERFORMING PRE-**



- SE PMS OPNAV 4790/51 RECORDS
  - D51 RECORDS ARE TO BE MAINTAINED BY TEC AND SERIAL NUMBER IN A FOLDER
    - \*THIS IS TO ENSURE THE CORRECT ASSET IS PROPERLY MAINTAINED FOR DUPLICATE TYPE ITEMS
  - **□** 51 RECORD CONSTRUCTION
    - **\*LEFT SIDE** 
      - SCHEDULED INSPECTION VIDS MAFS
      - >OPNAV 4790/51 RECORD
      - ONE COMPLETE PM CYCLE OR 6
        MONTHS

- SE PMS OPNAV 4790/51 RECORDS
  - **□ 51 RECORD CONSTRUCTION (CONT)** 
    - \*RIGHT SIDE
      - **UNSCHEDULED MAINTENANCE**
      - PRESERVATION/DEPRESERVATION MAFS
      - PRESERVATION/DEPRESERVATION CHECKLIST
      - ACCEPTANCE/TRANSFER MAFS AND CHECKLIST
      - TECHNICAL DIRECTIVES MAFS (6 MONTHS)

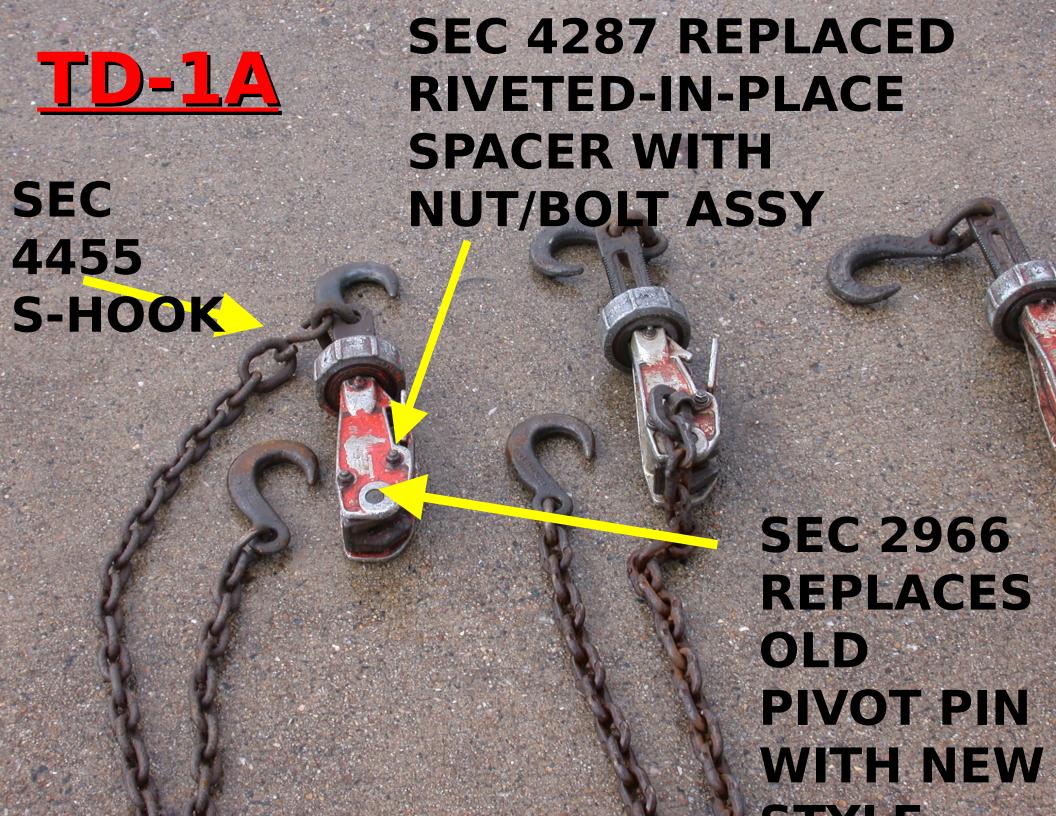
- SE PMS OPNAV 4790/51 RECORDS
  - **□51 RECORD LAYOUT** 
    - \*SECTION I CUSTODY AND TRANSFER RECORD
      - YOU ARE TO KEEP THE ACCEPTANCE AND TRANSFER CHECKLIST IN THIS RECORD
    - \*SECTION II RECORD OF REWORK
    - **SECTION III PRESERVATION AND DEPRESERVATION BLOCK** 
      - PBLOCK "B", RE-PRESV DUE DATE REQUIRES PENCIL ENTRIES FOR PRESERVATION INTEGRITY CHECKS/REPRESERVATION

- SE PMS OPNAV 4790/51 RECORDS
  - **□ 51 RECORD LAYOUT** 
    - **SECTION III PRESERVATION AND DEPRESERVATION BLOCK (CONT)** 
      - YOU ONLY NEED TO KEEP
        CURRENT
        PRESERVATION/DEPRESERVATION
        STATUS CHECKLIST
    - \*SECTION IV TECHNICAL DIRECTIVES
      - ENSURE THAT ALL TECHNICAL DIRECTIVES ARE DOCUMENTED
      - IN BLOCK "C" ENTER A BRIEF DISCRIPTION OF THE TD

- SE PMS OPNAV 4790/51 RECORDS
  - **□** 51 RECORD LAYOUT
    - **\*SECTION V PERIODIC**MAINTENANCE INSPECTION
      - RECORD NDI AND PROOF LOAD
        TESTING HERE
    - \*SECTION VI MISCELLANEOUS HISTORY RECORD
      - WHICH NO OTHER SPACE IS PROVIDED
      - >VERIFICATION OF TD's
      - FORCED REMOVAL DATES
      - >HYDROSTATIC INSPECTION FOR

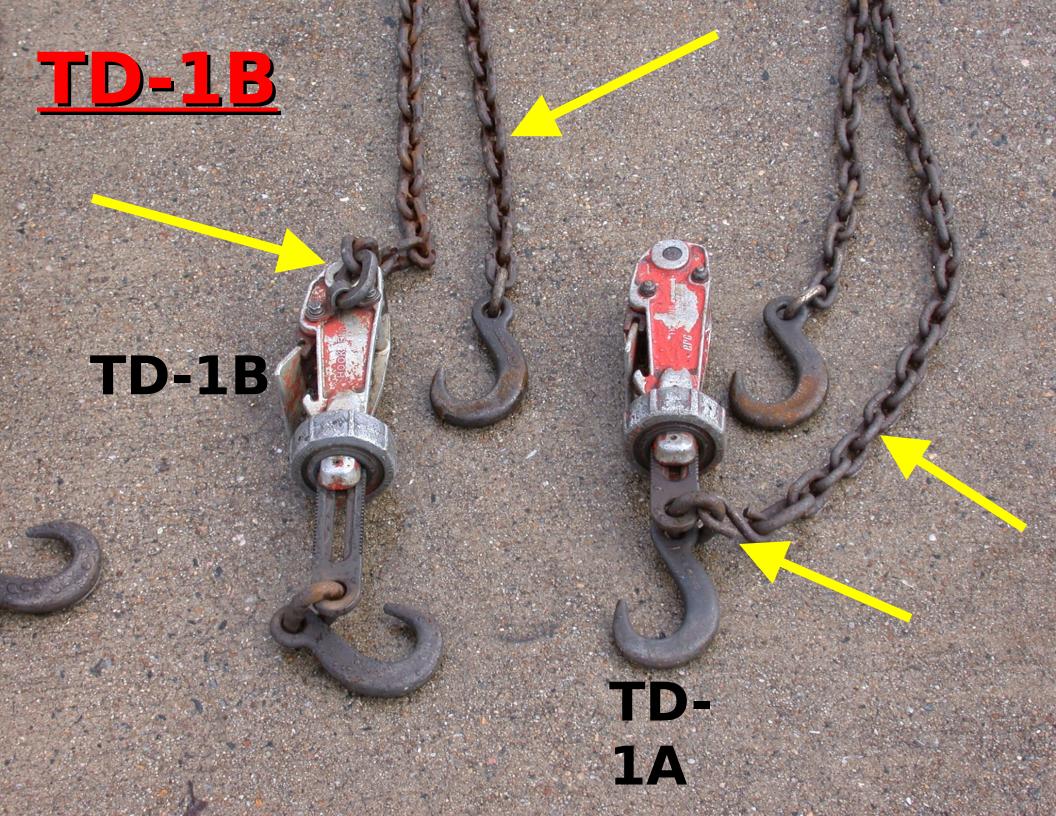
- SE PMS OPNAV 4790/51 RECORDS
  - **51 RECORD RECONSTRUCTION** 
    - \*MOST IMPORTANT IF YOU HAVE TO START A NEW HISTORY RECORD, READ PARAGRAPH 18.4 OF VOL. V
    - \*PROVIDES SPECIFIC INFORMATION ON WHAT TO TRANSCRIBE FROM OLD RECORD TO NEW RECORD
    - \*RETAIN OLD HISTORY RECORD IN FOLDER.
    - \*NEVER THROW IT AWAY!

- TD-IA AND TD-IB TIEDOWN CHAINS
  - REFERENCE: NA 17-1-537, WP 012, PARA 18-20 COVERS PREOPERATIONAL AND PERIDOIC INSPECTION
  - □TD-1A
    - \*PART NUMBER 61A101D
    - \*REQUIRES INCORPORATION OF THREE TD's
      - >SECS 2966, 4287 AND 4455
    - \*WARNING: <u>NO WELDING IS</u>
      <u>ALLOWED ON THE CHAIN ASSEMBLY</u>
      <u>PER NA 17-1-537, WP-003, PARA 11</u>



- TD-IA AND TD-IB TIEDOWN CHAINS

  □TD-1B
  - \*PART NUMBER 1540AS100-1/2
  - \*REQUIRES NO TD's
  - \*WARNING: <u>NO WELDING IS</u>
    ALLOWED ON THE CHAIN ASSEMBLY
    PER NA 17-1-537, WP-003, PARA 11



- TD-IA AND TD-IB TIEDOWN CHAINS
  - **CHAIN MARKING** 
    - \*MARK CHAINS WITH ORGANIZATIONAL CODE AND SN#
    - **\*NA 17-1-537, WP-003 PARA 12**IDENTIFICATION MARKING OF CHAIN
    - \*MARK THE CHAIN ON THE TENSION NUT WITH 3/8" METAL STAMPS BETWEEN THE ARROWS



- TD-IA AND TD-IB TIEDOWN CHAINS
  - DO NOT MIX TD-1A'S AND TD-1B'S IN THE SAME LOTS OF TEN
  - DIFFERENT PART NUMBERS REQUIRE SEPARATE OPNAV 4790/51 HISTORY RECORDS
  - "LOT" IN BLOCK 3 OF THE 51 RECORD AND ANNOTATE FIRST SERIAL NUMBER IN THE LOT IN PENCIL
  - DOCUMENT SERIAL NUMBERS OF THE OTHER NINE CHAINS IN SECTION VI, <u>IN PENCIL</u>

- FALL PROTECTION WWW.NAVFAC.NAVY.MIL
  - **NAVFACINST 5100.11J, PARA 0109**
  - **DESTABLISHES POLICY CONCERNING**FALL PROTECTION

"EACH ACTIVITY SHALL ESTABLISH FALL PROTECTION PROGRAMS WHICH INCLUDE IDENTIFICATION AND ELIMINATION OF FALL HAZARDS"

- FALL PROTECTION
  - **INSTRUCTIONS MANUAL**

navfac.navy.mil/safety/site/fall/policy.htm# quidance

- **PROVIDES THE FOLLOWING:** 
  - FALL PROTECTION SYSTEMS AND GUIDELINES
  - DUTIES AND RESPONSIBLITIES OF COMPETENT PERSONNEL
  - >INSPECTION, MAINTENANCE AND CARE OF FALL EQUIPMENT
  - >TIE OFF CONSIDERATIONS

- FALL PROTECTION
  - **INSTRUCTIONS MANUAL** 
    - > FALL PROTECTION PLANS
    - FALL PROTECTION SYSTEM DESIGN
    - >AMERICAN NATIONAL STANDARDS INSTITUTE REQUIREMENTS
    - >IDENTIFYING FALL HAZARDS
    - > FALL PROTECTION TRAINING
    - MATHAMATICAL PROBLEMS FOR LIFELINES AND ABSORBERS

- FALL PROTECTION
  - **INSTRUCTIONS MANUAL**

WWW.NAVFAC.NAVY.MIL

**\*COMING SOON!** 

DEPARTMENT OF THE NAVY

FALL PROTECTION GUIDE ASHORE
FACILITIES

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - **REFERENCES** 
    - \*OPNAV 4790.2H, VOL V, CHAP 17, PARA 17.3A(9) AND NOTE (NAMSOP REQUIRED)
    - \*NAVSEA SW023-AH-WHM-010
      THIRD REVISION NAVAIR 17-1-114
  - **FORKLIFT OPERATOR LICENSING** 
    - \*NAVSUP 538 IS CURRENT
    - \*PHYSICAL EXAM PRIOR TO GETTING LICENSE

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - **PFORKLIFT OPERATOR LICENSING** (CONT)
    - \*PHYSICAL IS GOOD FOR TWO YEARS, SO LICENSE EXPIRATION IS THE PHYSICALS EXPIRATION DATE
  - LICENSE FOR FORKLIFTS WILL BE ISSUED ON FORM SPECIFIED IN APPENDIX E OF NAVSUP 538.
    - **\*LISTS UP TO 5 TYPES OF MATERIAL HANDLING EQUIPMENT (MHE)**
    - **\*LICENSE SHALL INDICATE** 
      - EXPLOSIVE OPERATOR MHE, IF

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - \*FORKLIFT OPERATOR LICENSING (CONT)
    - MUST HOLD CURRENT MEDICAL CERTIFICATE
    - LIMITATIONS OF THE OPERATOR DUE TO PHYSICAL DISIBILITIES
    - ONLY THE CLASS/LIFT CODE (LISTED ON THE BACK OF THE LICENSE), TYPE/DESIGNATOR (EE, EX, DS, ETC.) AND THEIR SWL (e.g. 4K, 6K, or 20K, etc) FOR WHICH THE LICENSE IS VALID IS

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - **PERSONEL SAFETY WITH MHE** 
    - \*MHE OPERATORS SHALL WEAR ALL NECESSARY PERSONAL PROTECTIVE EQUIPMENT, SUCH AS SAFETY HELMETS, SAFETY SHOES, EYE AND HEARING PROTECTION PER LOCAL INSTRUCTIONS
    - \*DON'T WALK OR PASS UNDER ANY RAISED PORTION OF FORLKLIFT WHETHER LOADED OR EMPTY
    - \*KEEP BODY WELL INSIDE OPERATING COMPARTMENT

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - PERSONEL SAFETY WITH MHE (CONT)
    - **ENSURE THAT YOUR HANDS ARE DRY AND FREE OF GREASE PRIOR TO OPERATING**
    - \*NO STUNT DRIVING OR HORSE PLAYING
    - \*DON'T SPIN WHEELS OR RACE ENGINE
    - \*MHE SAFETY BELTS SHALL BE WORN FOR ALL OPERATIONS EXCEPT SHIPBOARD AND PIERSIDE OPERATIONS, AT THE DISCRETION

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - PRE-OPERATIONAL INSPECTIONS OF MHE
    - \*FIRST PERSON USING THE MHE
      SHALL PERFORM A PRE-OP
      INSPECTION USING THE "START"
      PORTION OF THE MHE INSPECTION
      FORM
      - THROUGHOUT THE SHIFT THEY ARE TO REVIEW THE FORM AND IF FOUND ACCEPTABLE THE FORM WILL REMAIN WITH THE UNIT OR

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - PRE-OPERATIONAL INSPECTIONS OF MHE
    - \*LAST OPERATOR OF THE SHIFT
      SHALL PERFORM A POSTOPERATIONAL INSPECTION USING
      THE "FINISH" PORTION OF THE MHE
      INSPECTION FORM
    - **❖**ALL DISCREPANCIES SHALL BE NOTED ON THE INSPECTION FORM, NOTIFY SUPERVISIOR AND TURN ITEM IN FOR REPAIR (NAVSEA SW023-AH-WHM-010, PARA 6-5.1)

MHE INSPECTION FORM		DATE	KEGIST	KAHON	NO. (USIN)				
POWERED MUE TO BE CHECKER DAILY BY OREDATOR									
POWERED MHE TO BE CHECKED DAILY BY OPERATOR NOTES									
1. USE THIS FORM WHEN INSPECTING MHE BEFORE AND AFTER OPERATION. CHECK ( X ) IN APPROPRIATE COLUMNS TO INDICATE SATISFACTORY OR UNSATISFACTORY CONDITIONS.									
2. NOT APPLICABLE INSPECTION PROCEDURES MAY BE OBLITERATED FOR THAT PARTICULAR MHE TYPE.									
<ol><li>IF DEFECTS ARE FOUND, REMOVE MHE FROM SERVICE, NOTIFY IMMEDIATE S MAINTAIN FORM IN HISTORY FILE UNTIL REPAIRS ARE MADE.</li></ol>				SUPERVISOR AND		SHIFT HR-METER Reading			
4. IF NO DEFECTS ARE FOUND:					END				
(A) INITIAL OPERATOR: SIGN AND DATE FORM. ATTACH TO MHE.					START				
(B) LAST OPERATOR: MAINTAIN FORM IN ACCORDANCE WITH LOCAL PRO					DIFF.				
5. THIS FORM IS NOT AVAILABLE IN THE SUPPLY SYSTEM.			START		FINISH				
REPRODUCTION OF THIS FORM FROM THIS MAN		ANUAL IS AUTHORIZED.	SAT	UNSAT	SAT	UNSAT			
1	Tires and Rims						1		
2	Engine Oil and Fluid Levels						2		
3	Radiator Coolant Level						3		
4	Battery						4		
5	Fuel System						5		
6	Unusual Engine Noises						6		
7	Arcing of Contactors						7		
8	Lights						8		
9	Horn						9		
10	Hoist						10		
11	Tilt and Side Shift						11		
12	Transmission/Clutch						12		
13	Directional Controls						13		
14	Brake System						14		
15	Steering						15		
16	Steer Axle Stops						16		
17	Gauges/Meters						17		
18	Fire Extinguisher						18		
19	Seat Belts						19		
20	Forks						20		
21	Fork Positioning Locks and Stops						21		
22	Overhead Guards						22		
23	Ground Straps/Static Conductive Tires/Wheels						23		
24							24		
25 Valid Weight Test Certification Information						25			
AREA OPERATOR'S SIGNATURE									

SEE REMARKS ON CONTINUATION SHEET (Number and remark same as inspection item to which it applies)

FIGURE 6-1. MHE Inspection Form

#### **NAVAIR 00-80T-119**

#### APPENDIX A

#### Types of Weight Handling Equipment

NOMENCLATURE	TYPE/MODEL DESIGNATION	PART NUMBER
1. Carrier Vessel Crash Crane *	A/S32A-35	3075AS100-1
2. Amphibious Assault Crash Crane *	A/\$32A-36	1764AS100-1
3. Aircraft Maintenance Crane *	A/\$32M-14	A45836-1
4. Aircraft Maintenance Crane *	A/S32M-17	3070AS100-1
5. Mobile Floor Crane	A/M32M-31	1819
6. 2,000 lb Capacity Hangar Deck Crane	A/M32M-24	1262A\$100-1
7 2,000 lb Capacity Portable Straddle Type Engine Hoist		58A158J1
8. 7,000 lb Capacity Portable Straddle Type Engine Hoist		58A118-1
9. Portable 2-4 Ton Crane (Cobra Crane) *		75D110080-1001
10. 1,500 lb Utility Crane		9319-010

Denotes powered.

#### NAVAIR 17-1-114, WP 005

### ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE WITH ILLUSTRATED PARTS BREAKDOWN

## INSPECTION AND PROOFLOAD TESTING OF LIFTING SLINGS FOR AIRCRAFT AND RELATED COMPONENTS

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - DAIRCRAFT SE SLINGS AND LIFTING SLINGS
    - \*SUBJECT TO THE PREVENTIVE MAINTENANCE INSPECTION SCHEDULE OF TABLE 1 OF NAVAIR 17-1-114
    - \*THE INSTRUCTIONS IN THE NA17-1-114 MANUAL AND NA 17-600-183-6-2 ARE MINIMUM REQUIREMENTS AND SHALL TAKE PRECEDENCE OVER ANY LESS RESTRICTIVE INSTRUSTIONS LISTED IN ANY OTHER NAVY

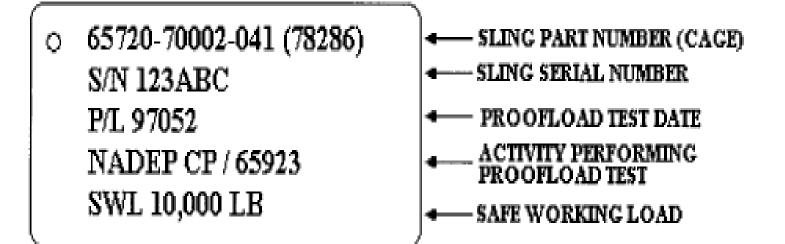
- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - **PAIRCRAFT SE SLINGS AND LIFTING SLINGS** 
    - **SOME INDIVIDUAL AIRCRAFT OR ENGINE COGNIZENT FIELD ACTIVITY /FLEET SUPPORT TEAMS** (CFA/FST) HAVE IMPOSED ADDITIONAL INSPECTION AND MAINTENANCE CRITERIA THAT ARE **IDENTIFIED IN NA17-1-114** APPLICABLE WORK PACKAGES OR IN THE RESPECTIVE AIRCRAFT MAINTENANCE MANUAL

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - **PAIRCRAFT SE SLINGS AND LIFTING SLINGS PROOFLOADING** 
    - \*NO REQUIREMENT FOR ANNUAL PROOFLOAD TESTING OF AIRCRAFT SUPPORT EQUIPMENT SLINGS
    - \*PROOFLOAD TESTING IS
      CONDUCTED AT NEW MANUFACTURE
      OR AFTER MAJOR REPAIRS TO VERIFY
      THE INTEGRITY OF CONSTRUCTION
      OF THE SLING

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - □ AIRCRAFT SE SLINGS AND LIFTING
    SLINGS ACCEPTANCE INSPECTIONS
    □ REPORTING CUSTODIAN,
    ORGANIZATIONAL, INTERMEDIATE, OR
  - DEPOT SHALL PERFORM AN ACCEPTANCE INSPECTION ON NEWLY ASSIGNED SUPPORT EQUIPMENT
  - **SLINGS**
  - INSPECTION SHALL INCLUDE AN INVENTORY OF ALL RECORDS AND COMPONENTS THAT MAKE UP THE AIRCRAFT SUPPORT EQUIPMENT SLING

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - □ AIRCRAFT SE SLINGS AND LIFTING SLINGS ACCEPTANCE INSPECTIONS (CONT)
    - **\*INVENTORY SHALL INCLUDE** 
      - **OPNAV 4790/51 RECORD**
      - > PROOFLOAD TAG
      - >TESTING/INSPECTION CERTIFICATION STICKER
      - >IDENTIFICATION
        PLATE/TAG/STENCIL
      - VIDS/MAF HISTORICAL FILES

- WEIGHT HANDLING EQUIPMENT AND RIGGING EQUIPMENT
  - □ AIRCRAFT SE SLINGS AND LIFTING SLINGS ACCEPTANCE INSPECTIONS (CONT)
    - **\*INITIATE OPNAV 4790/52 RECORD**
    - \*VERIFY SLING CONFIGURATION
      WITH APPLICABLE ILLUSTRATED
      PARTS BREAKDOWN, DRAWINGS OR
      OTHER TECHNICAL DATA
    - **❖PERFORM PREOPERATIONAL**INSPECTION IAW NA 17-600-183-6-1



#### PROOFLOAD TAG



#### TEST/INSPECTION CERTIFICATION STICKER (Enlarged)

(Affix the Test/Inspection Certification Sticker to the backside of the Proofload Tag.)

Figure 2. Example Proofload Tag and Test/Inspection Certification Sticker

- FUEL SURVEILLENCE
  - **PREFERÈNCES** 
    - \*AIRCRAFT REFUELING NATOPS MANUAL NA 00-80T-109, PG 9-4, PAR 9.3
    - \*MANTENANCE INSTRUCTION FOR ORGANIZATIONAL, INTERMEDIATE AND DEPOT AIRCRAFT FUEL CELLS AND TANKS NA 01-1A-35, PAR 3-5 THROUGH 3-7
  - \*NAMP OPNAV 4790.2H, VOL V, CH 3

    □FUEL SAMPLE KIT MAINTENANCE
    - \*PROPERLY MAINTAIN FUEL SAMPLE KITS BY KEEPING THEM WELL

- FUEL SURVEILLENCE
  - **FUEL KIT MAINTENANCE (CONT)** 
    - \*DON'T STORE BOTTLES AND KITS IN LOCKED CAGES THAT ARE NOT COVERED ALLOWS BOTTLES TO ACCUMULATE DUST AND DIRT
  - **SAMPLE BOTTLES SHALL BE**CLEANED AFTER EACH USE

    SAMPLE BOTTLE CLEANING
    - \*PER NAVAIR 00-80T-109, AIRCRAFT REFUELING NATOPS MANUAL.PAR.
    - 9.3.1, UNDER "NOTE"
      - PALCOHOL SHALL NOT BE USED TO CLEAN SAMPLE BOTTLES"

- FUEL SURVEILLENCE
  - **FUEL SAMPLE SAFETY PROCEDURES** 
    - **\*USE PROPER PPE WHEN PERFORMING FUEL SAMPLES** 
      - CHEMICAL-RESISTANT GLOVES
        AND GOGGLES
      - NENSURE THAT ALL PPE CONTAINS AN INVENTORY SHEET AND IS INCLUDED IN THE TOOL CONTROL PROGRAM
      - HOW TO INSPECT PPE AND NOTIFY SUPERVISORS OF DISCREPANCIES

- •WHAT CAN CODE 124A DO FOR YOU?
- Assist in all SE/SE PMS and Line safety questions
- •Review Plane Captain/Line/SE PMS instructions for accuracy, content and program compliance
- Provide training concerning SE/SE PMS/Line
- Provide survey/assistance in evaluating your SE/SE/PMS/Line safety program



# AVIATION MAINTENANCE SAFETY CONFERENCE

2004

# QUESTIONS?

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